DOCUMENT RESUME

ED 164 133 PS 010 338

AUTHOR	Herbert, Wray
TITLE	Emotions in the Lives of Children.
INSTITUTION	National Inst. of Mental Health (DHEW), Rockville, Md. Div. of Scientific and Public Information.
REPORT NO	DHEW-ADM-78-644
PUB DATE	May 77
NOTE	20p.
AVAILABLE FROM	Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 ($1.00, Stock No. 017-024-00656-4)
EDRS PRICE	MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS	*Altruism; Children; *Emotional Development; *Empathy; Imitation; Infants; Longitudinal Studies; Modeling (Psychological); Mothers; *Perspective Taking; *Prosocial Behavior; Research; Role Models; Social Development

ABSTRACT

Several related studies of empathy and altruism in children were conducted to answer such questions as: (1) What are the very early signs of empathy and altruism in children? (2) What kinds of transformations in these behaviors take place during development? and (3) How do rearing experiences influence these behaviors? Data related to these questions were obtained from several age groups and through different methods. Children 10 months to 2-1/2 years were studied in the home environment by trained mothers who functioned as research assistants. Children 3-1/2-5-1/2 years were studied under experimental conditions. Children 5-8 years were studied in nursery schools and day camps through naturalistic and systematic observation. Among the findings, developmentally changing behaviors were noted: children's response to the distress of another begins (around 10-12 months) with agitated facial expressions and/or crys of distress and proceeds through touching or rubbing the injured person and, later to trying on feelings by deliberate imitation and self-referencing or immediate taking on the emotion of the injured other. An increase in altruism appears to require a combination of conditions in which caregivers have a nurturant relationship with the child and actively demonstrate altruism in behavior toward people in distress. (Author/RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

NATIONAL INSTITUTE OF MENTAL HEALTH

EMOTIONS IN THE LIVES OF CHILDREN

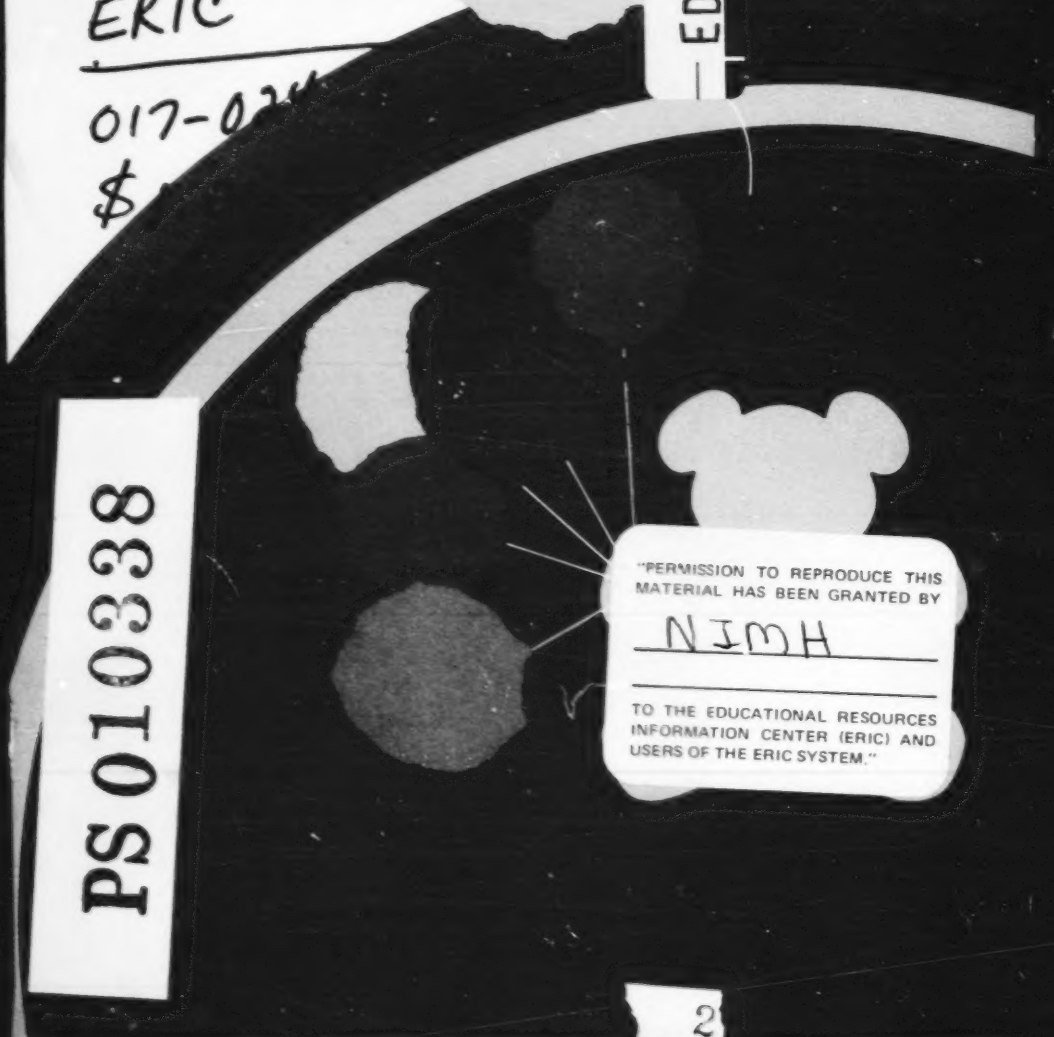
For SL
ERIC

017-024
$

ED164133

PS010338

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
NIMH
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."



Investigator: Marian Radke Yarrow, Ph.D.
Chief, Laboratory of Developmental Psychology
Division of Clinical and Behavioral Research
Intramural Research Program
National Institute of Mental Health
Bethesda, Maryland 20014

Author: Wray Herbert

Date of Interview: May 1977

Mental Health Studies and Reports Branch
Division of Scientific and Public Information
National Institute of Mental Health
5600 Fishers Lane
Rockville, Maryland 20857

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402
Stock No. 017-024-00656-4

011852

FOREWORD

Rarely do we think of infants and small children in terms of emotional beings. Yet, children from infancy on live in a world surrounded by emotions—the infant lavished with parental love; the toddler experiencing peer envy, anger, fear; and the growing child exposed to TV violence and expanding environmental pressures. When do children become sensitive to emotional cues in the world around them? What impact do these cues have on children? What is involved in the process of children's emotional growth? Do all children experience the same emotions in the same way?

Dr. Marian Yarrow, Chief of the National Institute of Mental Health's Laboratory of Developmental Psychology, and her colleagues have undertaken the difficult task of attempting to answer these questions. They are investigating the broad range of factors involved in the emotional development of children, with a goal of piecing together a scientific portrait of emotions in children.

In a world made cynical by daily items of international conflict and interpersonal aggression, the description of Dr. Yarrow's research presented in this report provides a refreshing perspective. It deals with emerging prosocial behavior in children, examining the complex dynamics involved in how empathy—the forerunner of altruistic behavior—develops in children and its relationship to perceptual and cognitive abilities, social awareness, and stable personality traits.

The research is of great importance to those interested in children for it suggests that adult modeling plays a crucial role in nourishing altruistic learning early in a child's life. Parents particularly will gain insight into the emotional stimuli they provide their children through their childrearing practices. Researchers will gain new perspectives regarding the complex techniques involved in tracing developmental changes in young children.

Francis N. Waldrop, M.D.
Acting Director
National Institute of Mental Health

Emotions in the Lives of Children

The emotions of children are a difficult area for scientific study; yet, because they are inseparable from many aspects of child behavior, it is essential to examine them—to learn how they develop and how they are adaptive or maladaptive in the lives of young children.

Virtually all things that children do have emotional components. In early learning, in the processes of discovery and problemsolving, there are emotional investments and reactions of a positive nature; and, just as surely, there are painful emotions locked into learning failures. Childrearing and education involve significant emotional interchanges between adult and child, just as a child's life does among his peers. When behavior becomes "problem behavior," disordered or uncontrolled emotions are usually involved.

One has but to ask a few questions to discover how vastly uncharted the realm of emotional development is: (1) Do children of all ages experience the same emotions—joy, anger, guilt, pride, and so forth—and do they experience them in the same way? (Although most of us feel quite secure in assuming that experiences are different for a toddler and a 12-year-old and that developmental changes must take place with emotions as they do with other behaviors, what is not clear is the nature of these developmental changes.) (2) How do other maturing abilities of the child, such as cognitive abilities and personality variables, interact with emotional development? (3) What are the influences of childhood experiences on the immediate and long-term emotional characteristics of the child?

Much research must still be directed to these questions

before they can be answered with a needed specificity and sophistication. This research effort must, of necessity, focus on specific aspects of the larger questions. Scientists at the National Institute of Mental Health (NIMH) engaged in research on emotional development of children have been concerned particularly with emotions in the environments of children and how these emotions affect the emotions and behavior of children. In other words, how sensitive are children to the emotions of persons around them; how do children "process" and act upon the emotional input from their social environment? And how are reactions to this emotional input influenced by the developmental level and by the ways in which the child is reared?

The scientific team engaged in this research is led by Dr. Marian Radke Yarrow, Chief of the NIMH Laboratory of Developmental Psychology. Dr. Carolyn Waxler has been a major collaborator during much of the research, and more recently Dr. David Barrett has joined the research team. In addition, Dr. Phyllis Scott, now at Monash University in Australia, and Dr. Robert King, now at the Children's Hospital National Medical Center in Washington, D.C., were involved in earlier phases of the program.

What is meant by emotional, or affective, input from the environment? The NIMH scientists described the foundation for their research: "Consider the day-to-day experiences of children. A large class of stimuli includes the emotions and feelings of persons in their world. Children are often observers of these events just as they are the observers of other events. They are bystanders to the glee and thrill of a playmate who has found her lost kitten, to the grieving of a friend whose parent has died, to the anger of two drivers competing for the same parking space. The emotions of others are often intimately bound up with interactions with the child, as, for example, when a mother displays fright and anger as she rescues her child from danger or when the child is in daily contact with a sullen or depressed father. In these instances, a parent's emotions have direct consequences for a child; under other circumstances, the emotions may be something akin to traffic noise or climate—they are context, background."

There is every reason to believe that these stimuli do not go unheeded by children. Indeed, there is considerable evidence that even very young children are keenly sensitive to the feelings of others and that they often pick up subtle cues. Many an adult, for example, who has tried to conceal his or her real feelings to "protect" a child, has learned that "emotional fraud" is not easy, perhaps not even possible. Just how discriminating are children? What are the responsive behaviors of children when they are confronted with emotional stimuli in their environment?

"Emotion" is a label for an extensive assortment of states and behaviors. Psychological research on emotions goes back a long way in the history of child studies. During the 1930's and 1940's, scientists gave intense scrutiny to the emotions of infants—looking to discover what emotions are present at birth and soon after and how early different kinds of emotions are experienced and expressed. The roles of both maturation and experience were given consideration. There were investigations of specific emotions—fears in young children, what they are, how they came into being, and how they might be eliminated. However, over the years, a systematic study of children's emotions did not continue in any broad or comprehensive way.

Research has flourished on certain areas of early emotional life, notably infant attachment to the mother and child hostility and aggression. Other areas have been neglected. Thus, children's affection, outside the studies of mother-child bonds, has not been closely examined, and, similarly, children's sorrow and depression remain poorly understood. Many other emotional states (pride, guilt, shame, fear), important in the lives of children, have had relatively little systematic study.

The research at NIMH's Laboratory of Developmental Psychology began with a focus on empathy and feelings of compassion and altruism in children. Successive studies involved broader emotions in the lives of children.

Empathy, as the investigators view it, is emotional arousal in response to another person's emotional experiences; it is the vicarious experiencing of another's emotion. (As you witness the car door slam shut on your friend's fingers, you shudder or feel faint.) The capacity for empathy is essential for effective interpersonal relationships: Empathy, it is assumed, is a basis for compassionate feelings and altruistic behaviors toward others (e.g., acts of help, rescue, generosity, sympathy).

There is a long history of controversy about altruism, whether it is or is not a part of human nature. The literature of philosophy, the writings of Darwin and of Freud, the investigations in present-day biology and psychology attest to the continued interest in the kinds of feelings and behaviors that result in benefit to other persons. Research in various disciplines has begun to transform the discussion of "altruism" from philosophical argument to empirical data. As an example of the biological approach, Dr. Paul MacLean of NIMH is currently searching out the possible neural bases of empathy. From psychological studies, there is accumulated information on the forms of altruism and the processes and conditions underlying these behaviors. The NIMH research team has approached these questions from a developmental perspective. What are the very early signs of empathy and altruism in children? What kinds of transformations in these behaviors take

place during development? How do rearing experiences influence these behaviors? These questions have led the researchers through a series of studies which provide new understanding of the development of emotions in the lives of children.

The Methods

The NIMH scientists have used a variety of methods in their investigations: (1) They have designed experiments in which "mini-social situations" are created, in which to observe children. (2) They have used systematic techniques for observing children in natural interactions. (3) They have trained mothers to observe and report on their children's behaviors, to provide data not readily accessible to an "outsider." The studies have been carried out in various "laboratories"—the NIMH psychology laboratory itself, the children's homes, nursery schools, and summer camps. The children have ranged in age from 9 months to 8 years. Since the methods for arriving at information on these complex behaviors are important, each method is described below.

Using an experimental approach, the researchers measured the altruistic behaviors of more than a hundred 3½- to 5½-year-olds by obtaining their responses to pictured persons or animals in distress (e.g., a child has fallen out of a swing) and to behavioral events of distress (e.g., a teacher apparently bumps her head hard on a desk as she gets up after retrieving a pencil that had fallen under the desk). The children who showed little altruism became part of an experiment. Their preschool experiences were carefully programed to provide them with different conditions of adult care and teaching. These were specific learning conditions of adult care and teaching that researchers hypothesized were important in the development of empathy and altruistic behaviors. In this experiment, groups of children spent a period of time on each of 5 days spaced over several weeks with experimenter-teachers, who took care of the children in different ways. With half of the group, the adults systematically built up warm and nurturant relationships with the children. The other half of the group had teachers who maintained a neutral, detached distance, adequately taking care of the children's needs but not offering attentive nurturance. After these "histories" of relationships between child and adult had been established, the teachers, during the next weeks, systematically provided learning experiences about behaving altruistically—helping, sharing, comforting.

Teaching was done in two ways: One way was the use of picture stories or toy dramas that might call for empathy and altruism (for example, a monkey trying to retrieve a banana that has fallen outside the cage; a child has fallen off a bicycle). The teacher interpreted each story or event, explain-

ing how the animal or child felt and what might be said or done to intervene—in this way conveying principles or expectations regarding behavior in response to someone's distress. In a second way of teaching, the adult modeled real helping, sharing, and comforting. Situations involving minor distresses to the adult or a pet or a peer (for example, rescuing a kitten that had become entangled in yarn, attending to the minor injury of another teacher with words of sympathy, or sharing materials with a peer who was without them) were carefully integrated into the preschool routine. Half the groups of children who had a highly nurturant caretaker and half who had a low-nurturant caretaker received only the first kind of training (the symbolic and verbal altruism); the other half of the nurtured and low-nurtured groups received both kinds of training. The children were reassessed on altruism for 2 days, and then again 2 weeks after training, on different situations in which helping, sharing, or comforting would be a response.

This brief account, hardly a technical or scientific description of the experiment, illustrates how experimental methods can be used to investigate children's social and emotional behavior. The objective of this experiment was to recreate in the laboratory, as authentically as possible, on a miniature scale, different styles of childrearing. The experimenters played the roles of different kinds of mother-substitutes in order to study how rearing influences the likelihood of a child's responding to another's distress.

Naturalistic observations were the major tool for studying child emotions and behaviors. In other phases of the research program, children were observed in play and in work projects with their peers. Systematic observation requires precise rules for sampling behavior and for recording and interpreting it. In some of the studies, behavior was recorded in specific categories (for example, shares, shouts angrily, cries, seeks mother's attention). The categories varied, depending on the specific research questions of each study. In order to make certain that the observational records were providing reasonably accurate accounts, two observers proceeded independently, and their reports were analyzed for correspondence.

In other observational studies of altruism, the researchers' accounts were made in narrative form and then coded into categories. For example:

> Ginny is sitting in front of the TV with her family eating dinner. The news program parades on-the-spot coverage of the bloody death and destruction of street fighting in a current war. The family goes on with the dinner conversation as the news continues. Ginny chews her food and drinks her milk, all the time watching. At one point she grimaces, but she is almost immediately caught up in her father's comment about the family car.

For still other studies, mothers were trained as research

assistants in techniques of observing and recording behavior. They were asked to report incidents of distress in their child's environment in which there were expressions of feeling—anger, fear, sorrow, pain, fatigue, and so forth. The mothers followed a specified form for dictating their observations, always including: (1) who was expressing emotion, (2) what was being expressed, (3) what caused the emotion, (4) what the child's responses to (or about) the person(s) showing emotion were, and (5) what the mother's own behaviors were. One mother, for example, dictated this narrative of an 18-month-old child:

> A neighbor's baby cries. *S* looked startled, her body stiffened. She approached and tried to give the baby cookies. She followed him around and began to whimper herself. She then tried to stroke his hair, but he pulled away. Later, she approached her mother, led her to the baby, and tried to put mother's hand on the baby's head. He calmed down a little, but *S* still looked worried. She continued to bring him toys and to pat his head and shoulders.

A single research approach, Dr. Yarrow explains, would be inadequate; some methods are best suited to some stages of research, and different methods to others. Also, it is important to replicate and validate a finding through the use of differing procedures.

The Findings

The initial studies of children's altruism were addressed to the question of how—and, indeed, whether—altruistic behavior could be increased in young children. Could the methods of caretaking and teaching, which are known to influence other child behaviors, also influence sympathetic behaviors? That is, would an adult's modeling of altruism lead to the child's imitation of the altruistic acts? Would the imitations that occurred in the presence of an adult model translate into an enduring form of altruism? Would nurturant adult models be most effective in influencing children's learning of altruism?

To answer these questions, Dr. Yarrow and her colleagues carried out the experiment, described earlier, with 3½- to 5½-year-old children. The different kinds of care and training provided by the various conditions of the experiment had very different effects on the children. Children who were trained in words and symbols (pictures and toy materials only) expressed more generosity and helping only at the level of words and symbols, not in situations calling for actual behavior: The nurturance of the adult made no difference. The children whose training included also the caregiver's modeling of actual helpful and compassionate behavior to "victims" of distress, and whose caregiver was nurturant toward them (in a sense, modeling helpfulness and compassion toward them) were the children whose own altruistic behavior increased

markedly. Their behaviors were sometimes quite ingenious and remarkably sensitive and adaptive. One child, for example, responded in the following way to one of the experimental "distress" situations used to assess the effects of the experimental training:

> A mother has brought her 12-month-old infant for a visit. He is in a playpen. The mother who has been playing with the child leaves the room for a moment and in leaving "accidently" pulls the toy out of his grasp, outside the playpen. This event invariably resulted in some protest and distress. The child of the experiment is momentarily alone beside the playpen. Returning the toy to the baby is a usual act of kindness. This child (age 4), however, returned the toy, brought still another, and reached out and patted the baby's arm while trying to talk to him comfortingly.

Thus an increase in altruism required a combination of conditions—parent surrogate who had both a nurturant relationship with the child and demonstrated altruism not just in stories or words but generally in her behavior toward people in distress. There was another important element in the caregiver's behavior in the experimental training, namely, when distress occurred she verbally brought the distress to the child's attention, interpreting how the "victim" probably felt and explaining how her helping was making a difference in the victim's feelings. In the toy drama where the monkey is unable to reach the banana, for example, the experimenter would say, "Oh, you can't reach your banana. You must be hungry. I'll help you get it—then you'll feel better."

The experiment was repeated with different adult caregivers and with other groups of children in day care centers. The results were the same as in the first study, thus helping to solidify the conclusions about effective conditions for learning prosocial behaviors.

These findings, of course, do not produce simple recipes for creating altruistic children. Each of the rearing practices that appears to have been important in increasing helping, comforting, or sharing was carried out by adults who were aware of, and sensitive to, the needs and capabilities of the young children. Nurturance was not limitless; the adult set limits and was at times withholding and critical. The verbal interpretations, too, were not "overdone" or belabored. It was the *combination* of rearing practices that made a difference in the children's behaviors. Since it is assumed that the children in the experiments had behaved altruistically before taking part in the experiment, the effects of the experimental training were interpreted as making the children more aware of others' feelings, and giving children, through the model's examples, more ways to act on their sensitivities. The training increased their willingness—or their motivation or their feelings of responsibility—to be considerate to a distressed person.

"One should not overinterpret the findings from these exper-

iments as providing a complete formula for developing more altruistic behaviors," Dr. Waxler cautioned. "Even the richest experiment is only one step toward accounting for factors contributing to complex behaviors such as empathy and altruism. Although these experiments demonstrated some telling differences in the effectiveness of various rearing practices, the findings also clearly posed other questions."

One set of questions grows out of the difference in responding by the children in the experiments: Given the same distress signals from peers or adults or animals, not every child responded empathically. Exposed to what were generally the most effective training conditions for fostering these responses, not every child learned. In other words, the training conditions were not sufficient to account for all of the differences in altruistic behavior; and one is confronted with questions: What kind of child is altruistic or can be trained to be so? When does a child show altruism?

There are many ways to look for answers; for example, one is to look for existing personal differences in the youngsters. One might expect that certain personality characteristics would make it more or less likely for a child to be altruistic. One might also anticipate that children's cognitive abilities, especially abilities to take the roles or perspectives of other persons, would be influential in the likelihood of responding when another person was in distress. All told, much of the evidence on both the personality or the cognitive side as to who is less or more altruistic has yet to be gathered. The research was directed to this issue; therefore, several hundred children, some in nursery schools and some in day camps, were systematically observed in interactions with their peers and with their adult caregivers. Interactions of each child were coded as social initiations that were assertive, aggressive, seeking the adult's attention, sharing, helping, or sympathizing. Behaviors that peers directed to the child were coded similarly. Personal characteristics expressed in modes of interaction were found to make a difference in whether or not children intervened to help their peers. There was a tendency for the less socially interactive children to show less altruism, which suggests that general inhibition in social initiatives interferes with altruistic or prosocial reactions. Aggressive and assertive behaviors in children and altruistic behaviors are complexly related to altruism.

Whereas in much earlier research (in the 1930's) a positive association had been reported, and ever since assumed, between sympathy and aggression (suggesting possibly a reparative motive for the altruism), studies by the NIMH team tell a different story. Children showing socially assertive behaviors (which may sometimes border on what one thinks of as "aggressive") were more likely to respond altruistically

than children who were nonassertive. However, children (usually boys) showing high frequencies of clearly aggressive behaviors, such as hitting or calling names, were less likely to come to the help of their peers. A lot of aggressive behavior is not compatible with a lot of altruistic behaviors—at least not within the same general peer circumstances. Also, when the succession or sequences of these children's interactions with peers were observed, it became clear that, after a child has been aggressive to a peer, the probability of a prosocial action in the succeeding interaction with that peer or other peers is significantly lowered. For a brief time at least, the child seems to be less responsive to social cues that signal opportunities to be prosocial. Certain other kinds of experiences with peers, on the other hand, seemed to sensitize children to feelings of others: Children who had some peer aggression directed against them were more altruistic than children who had not had such experiences; however, there was no correlation for those children who had been victimized by their peers a great deal.

The children who were observed in their play were also tested to see if cognitive abilities, along with personal characteristics, help to predict qualities of altruistic children. How well can a child understand the point of view of another person which differs from his or her own? If a child had success and fun with a game, how well appreciated was the fact that another child disliked the game (a child who had been unsuccessful)? Or, if the child was sitting across the table from the teacher and was looking at the picture of a man, could the child understand that the man in the picture was upside down to the teacher? These questions were called "taking the perspective of the other."

A second social cognitive ability was assessed—how well the child can interpret behavior. Children were shown a series of video tapes of interaction in which behavior changed because of some emotional event. For example, a little boy is skillfully constructing a building out of blocks. His parents are in the room talking with one another. As their talking becomes an angry interchange, the boy casts some quick glances at them; his hands become unsteady, and the building begins to fall. Children are asked to explain what happened. One says, "I think he got scared and shaky when his mother and father were fighting." The researchers were interested to learn whether children's abilities to make inferences about others' behavior related to their inclinations to respond to others in need.

In general, the tested cognitive skills did not predict degrees of altruism—unless they were considered along with personality traits. For children who skillfully interpreted the videotaped sequences, being socially assertive was positively asso-

ciated with altruistic behavior. For children not skilled in interpreting behavior, there was no prediction of altruistic behavior. Dr. Barrett said of these findings: "For children who interpret other persons' behaviors on the basis of logical organizing principles, the prediction of altruism from other personal variables may be better than for children who view behavior less systematically. For them, perhaps, their prosocial behaviors are more dependent on situational events than on personality characteristics."

To better understand the conditions affecting individual children's decisions to intervene, some of the children were observed closely when someone was in distress. Varied motives and inhibitions seemed to be operating. On the occasion of a familiar adult's tearful upset over the contents of a letter, several children approached and sympathized openly—"I'm sorry you feel sad." Other children seemed to attempt to make contact, alternately approaching and withdrawing. One child oscillated like a pendulum, circling and grimacing but not intervening. Another child tried to aid the adult indirectly by wrapping a crayon in a paper airplane and throwing it toward the adult; she then ran and stared out the window. She later explained that she was trying to cheer up the adult. When the teacher pinched her finger in a drawer, one child came up quickly, "I'll take care of you." In cases of peer distress, children's reactions ranged from direct helping to running to the teacher for help, scurrying away as if fearful, or paying no attention.

As Dr. Yarrow explained, long observation, under many kinds of circumstances, is necessary to arrive at good assessments of the individual, to know, for example, what is facilitating or hindering a child's socially responsible behavior, whether a child has characteristic responses to another person's emotion, and whether some children are consistently nonempathic and nonaltruistic and others consistently empathic and altruistic.

Similarly, before making generalizations about age differences or sex differences in empathy and altruism, a substantial sampling is required. Therefore, the conclusions that the researchers draw from their data are stated tentatively. Almost every one of the children studied showed some prosocial responding, but the frequency varied considerably. There was a tendency, but not a strong one (significant correlations about +.33), for children's scores on sharing and comforting, tested experimentally, to be similar to their scores on these behaviors observed in natural settings. In this sense, there was a suggestion of individual consistency. The ages of the children (5 to 8) did not mark off any consistent trends of increase or decrease in altruism, and neither the frequency nor the forms of altruism appeared to differ for boys and girls of these ages.

These studies and the experiments described earlier framed the objectives of the research that Dr. Yarrow described as a "natural" extension of the preceding work. "To get at the emergence of empathic and altruistic behaviors, we needed to study children younger than the nursery age—when sharing and helping and sympathizing are already present, children at the end of the first year and into the second and third year of life. To get at development of sympathy and altruism, we needed to stay with each child over an extended period of time. If we did this we would also be in a position to look at individual patterns, and perhaps consistencies in empathic behaviors. We needed to move away from experimental designs, for a time at least, in order to deal with more intense emotional experiences in the lives of young children."

To fulfill these research purposes, 24 children were studied intensively. One-third of the group was 10 months old when the study started and 19 months old when it ended; a second one-third of the children entered the study at 15 months and ended at 24 months; another one-third began at 20 months and ended at 29 months.

The overlapping cohort design made possible longitudinal and cross-sectional examinations of development from 10 months to 2½ years. Mothers of the children were trained as research assistants. Their job was to report on emotional events occurring in the natural environment. These were events in which pain, anger, joy, sorrow, or weariness were expressed by persons in the child's immediate surrounding. The emotional events to be noted were of two kinds: those in which the child was a bystander, and those in which the child was the cause of someone's distress. Events were recorded in accordance with specified procedures: Mothers dictated an account of the event, the child's responses to the event, and the consequences, if any, of the child's reactions. At the same time the mothers also simulated seven specified emotions on a predetermined schedule, one emotion each week, and recorded the child's reactions. The mothers thus supplied data on children's reactions to the emotions of others, especially those assumed to be emotions of distress. In this way it was possible to obtain data on the precursors and early forms of empathy and altruism and, from the 9 months of records on each child, to map the developmental transformations in empathy and altruism. Approximately 1,500 incidents were obtained.

Dr. Yarrow described the developmentally changing behaviors. Children of all ages, she noted, responded to positive, happy events differently from events of emotional distress. Laughing and imitating were the primary responses to the joy of another person. The repertoire of the 10- to 12-month-old children in response to others' emotions of distress is limited and predictable: Agitation, expressed in facial expressions

(an intense frown, a wavering smile), and/or a cry of distress are characteristic reactions to another person's distress. The cry may be assumed to be a primitive, reflexive empathic response, which at this age has little to do with the other person, for example, the reaction of a child of 10½ months:

> On observing the painful blow on her mother's ankle, the child "looked sad, puckered up and burst out crying. She continued to cry intensely," or: When father and mother were fighting, the child "whimpered, tensely moved her arms about, becoming very restless."

At this age the child seems unready to engage the victim and generally does not look for specific cues relating to the distress, but rather to the person as a whole—in contrast to children several months older who often inspect victims' tears or bruises.

Around 12 to 15 months, every child studied showed the first positive responses directed to the other person. The first form of touching or rubbing the person seems to suggest the child is establishing the distress and emotion as part of the other person. It is possible that these responses also represent the child's seeking comfort in an upsetting circumstance through contact and attempting to give comfort.

The crying response begins to wane. Beginning at about 18 months, children change in their reactions to the expressed fear, pain, anger, and sadness of others. Two kinds of reactions, emotional expression and self-referential behaviors, tell a lot about what the child is processing. Imitations of the other person's emotional expressions seem almost reflexive. (The mother accidentally bit her cheek and winced. Immediately, the child's face "was an exact mirror of the pain.") This imitation seems, of course, much like empathy (experiencing another's emotion).

Imitations also may be deliberate and studied, as though the child is "trying on" the emotional expression and getting feedback to know how it feels. We see this "deliberate" imitation and self-referencing in the progression of a 21-month-old child's reaction: The mother bumped her elbow and grimaced and rubbed it. The child looked pained too, rubbed *her own* elbow, said "Ow," and then rubbed her mother's elbow. This sequence seems to aid the child's comprehension of the mother's emotion as it progresses to an actual initiation of a primitive positive behavior toward the victim.

For some children, in the developmental changes, imitation appears to take second place to the predominance of affect. The developmental transformation appears to be more a relocation of affect, as illustrated in changes in one little girl from 11 months old to 19 months old. This child is in the distress-cry stage; her brother is enraged, she cries, turns to her mother and is nestled and stroked. Later, when she is a little older, she comes upon her mother who is reacting to a scalded hand.

Again the nestling and hugging with her mother occur, but now she gives some comfort to her mother as well as getting comfort from her. Still later, the child's independent affect is unmistakable. She is observed comforting a visiting, crying baby. She is stroking his head, hugging and patting him, offering him toys, and finally trying to bring her mother to the rescue.

The children's tendency to refer someone's emotion to themselves, as in the illustration of the mother's bumped elbow, is especially interesting because such self-reference seems to show children's active attempts to understand others' feelings by "trying them on," according to Dr. King. It was not uncommon, he indicated, for self-referential responses to be followed by compassionate actions. Among 1½ to 2 year olds, comforting was sometimes elaborate: hugging the sobbing baby, trying to give the baby a toy, covering mother with a blanket when she is resting, trying to put a Band-aid on a peer's hurt, or verbalizing sympathy or concern.

Of course, acts of kindness toward someone in distress are not universal reactions of young children. There are also many occasions when others' emotions bring no such responses and, instead, bring anger and aggression—or no reaction at all. What is significant, however, is that the capabilities for kindness and compassion are present at very early stages of development.

One of the most evocative emotions for young children is anger in others. It is reacted to strongly and variously. For example, children showed distress to parents' arguments and anger with one another: crying, covering eyes and ears, hugging one parent, hitting parents, or running out of the room.

"We have been describing the central tendencies in the ways children in the first 2 years react toward others in emotional distress, in order to show the developmental changes," Dr. Yarrow noted. "We had several other interests in this study, one being to look at children over time for patterns of individual consistency. Indeed, distinct and consistent patterns emerged for some children. A number of children stood out as empathic and securely and competently altruistic. Several were intensely emotionally invested in comforting. For one little boy, emotions seemed to make almost no impression. Another child stood out in her lack of tolerance for others' emotions. She physically shut them out (hiding, covering her ears, cowering, fleeing the room) or lashed out aggressively. These profiles were relatively stable over the 9 months of the study. They alert us to the fact that the beginnings of empathic qualities of the individual are discernible at very early ages, and to look for factors shaping these qualities we will do well to consider what emotions are being manifested around and toward the child."

The mothers' descriptions of these emotional events and their handling of these situations provide information on how children are being trained differently in regard to being responsive to others' feelings and to being kind. Dr. Waxler described maternal behaviors that are linked with children's empathy and compassion. Children who were most empathic and altruistic and most reparative when they had caused distress had mothers who showed a concern about others' emotional well-being. Mothers were themselves exemplars of altruism in responding to others' needs and in being warm and caring toward their own children. These mothers had high expectations concerning the child's control of his/her aggressive impulses. When the child's own acts were injurious to another, these mothers strongly and affectively explained the distressing impact of the child's actions on the other person: "That makes me very sad to see you hit someone." "People are not for hurting!" "Stop that. You are hurting him." "I don't like to be with you when you act like that." And the mother leaves the room. The researchers suggest that it is not the verbal contents of mothers' communications but the emotional accompaniments that arouse children to action. Or it may be that the mother's affect is necessary in order to get the cognitive message to the child.

A significant locus for the child's learning empathy and altruism, these investigators believe, is the situation in which the child is directly involved by having caused the distress. What the caregiver does here in close interaction with the child tends to develop feelings and behaviors in the child that transfer to other distress situations in which the child is not the cause and in which the child behaves altruistically. Thus, coming to someone's rescue, or comforting someone who is sad or hurt, is not always without some anxious feelings on the part of the child. These anxious feelings probably derive from the affect-arousing messages from the mother when the child has been "at fault." Training the child to be attentive to the needs of others and to be responsible for one's own behavior which hurts others, and at the same time not to carry a heavy burden of anxiety, is not an easy task for parents. The "affective loading" of the parent's communications seems to be a critical dimension, but one not fully clarified in the present data. Dr. Yarrow emphasized the "in progress" nature of this aspect of the research: "Our study of the youngest children and their mothers has given us descriptive information from which we have made inferences about processes of parental influence. Our designs now take us to experimental procedures in which we, with the mothers, will be attempting to bring the processes into clearer view."

Conclusion

By their inquiries into the emotions of children and the emotional environments that impinge on children, Dr. Yarrow and her associates have added new perspectives on child development. They have offered insights into the complexities of social-emotional development by tracing some of the developmental changes in empathic and altruistic capabilities of young children and by identifying some of the factors contributing to these behaviors. They have found links between these behaviors and childrearing practices, on the one hand, and individual temperamental and cognitive properties of children, on the other. It is important not to lose sight of the research techniques that were developed in these studies—techniques that managed to retain the reality of the phenomena under scrutiny while subjecting these phenomena to experimentation, intensive observation, and rigorous analysis. But most of all, these data are important as they signal the keen sensitivities of young children to emotional stimuli. Especially in the longitudinal analyses of children in the second and third years of life, the acquired data are useful as (1) markers of normal emotional development and (2) early signs of deviant affective behavior.

Empathy and altruism are appreciably influenced by experiential factors, as demonstrated in the experimental studies of preschool-age children and in the naturalistic studies of younger children. Data from these sources indicate that altruism is best learned from parents who are themselves empathic and altruistic. Parents must do more than provide a model of compassionate behaviors toward others; they must also provide cognitive training of the kind described, maintain high expectations for their child, and have a caring, nurturant relationship with their child.

Although the research has been concentrated on parents' rearing practices, Drs. Yarrow and Waxler present a much broader version of "rearing influences at a distance"—the emotional events in the child's immediate environment. The emotions of other persons in the world of children, especially in the private world of the family, are stimuli quite as real as many more concrete and tangible stimuli and potentially quite as influential as the more direct rearing practices in the molding of children's emotional-social development.

Suggested Readings

Barrett, D.E., and Yarrow, M.R. Prosocial behavior, assertiveness and social inferential ability in children. *Child Development*, 48:475-481, 1977.

Waxler, C.Z., and Yarrow, M.R. Factors influencing imitative learning in preschool children. *Journal of Experimental Child Psychology*, 9:115-130, 1970.

Waxler, C.Z., and Yarrow, M.R. An observational study of maternal models. *Journal of Developmental Psychology*, 4:485-494, 1975.

Waxler, C.Z., and Yarrow, M.R. Perspective-taking and prosocial behavior. *Journal of Developmental Psychology*, 13:87-88, 1977.

Yarrow, M.R. Research on child rearing as a basis for practice. *Child Welfare*, 4:209-219, 1973.

Yarrow, M.R. Peers and friendship. In: Lewis, M., and Rosenblum, L., eds. *Friendship and Peer Relations: The Origin of Behavior*. Vol. II. New York: John Wiley and Sons, 1976.

Yarrow, M.R., and Scott, P.M. Imitation of nurturant and nonnurturant models. *Journal of Personality and Social Psychology*, 23:259-270, 1972.

Yarrow, M.R.; Scott, P.M.; and Waxler, C.Z. Learning concern for others. *Developmental Psychology*, 8:240-260, 1973.

Yarrow, M.R., and Waxler, C.Z. Dimensions and correlates of prosocial behavior in young children. *Child Development*, 47:118-125, 1976.

Yarrow, M.R., and Waxler, C.Z. Emergence and functions of prosocial behaviors in young children. In: Smart, R.C., and Smart, M., eds. *Readings in Child Development and Relationships and Infants: Developmental and Relationships*. New York: Macmillan Publishing Co., 1976. pp. 77-81.

Yarrow, M.R., and Waxler, C.Z. Observing interaction: A confrontation with methodology. In: Carins, Robert, ed. *Social Interactional Analysis: Methods and Illustrations*. Hillsdale, N.J.: Lawrence Erlbaum Associates. In press.

* U. S. GOVERNMENT PRINTING OFFICE : 1978 O - 264-448